

## MULTI-PHASE MOTION ESTIMATION SYSTEM AND METHOD

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## ABSTRACT OF THE DISCLOSURE

A method and system is provided for calculating motion vectors of macroblocks in a digital image of a digital video stream. The method and system reduces the computational overhead of calculating motion vectors computing difference measures using a multi-phase computational scheme. Specifically, the pixel blocks the previous image are divided into different groups. The closest matching pixel block of each group is determined in a first phase. Then a more accurate difference measure is used to determine the origin block from among the closest matching pixel blocks.